

Sub B7

WHAT IS CLAIMED IS:

1. An information-processing apparatus comprising:
first display control means for controlling a display of an icon hierarchy including a plurality of first icons on a first hierarchical layer, a plurality of second icons on a second hierarchical layer at a level lower than said first hierarchical layer, a plurality of third icons on a third hierarchical layer at a level lower than said second hierarchical layer and a plurality of fourth icons on a fourth hierarchical layer at a level higher than said first hierarchical layer so as to exhibit an array of said first icons as a column or a row on a screen and an array of said second icons as another column or another row on said screen wherein:

the number of said first icons displayed on said screen and the number of said second icons displayed on said screen are determined by the size of a display area on said screen; and

said array of said first icons and said array of said second icons are displayed on said screen to form an array hierarchical structure;

icon-specifying means for specifying a desired icon from said first or second icons displayed in said array hierarchical structure; and

second display control means for changing said array hierarchical structure displayed on said screen so as to:

display said third icons to replace said second icons in said array hierarchical structure on said screen and display said second icons to replace said first icons in said array hierarchical structure on said screen when said icon-specifying means specifies one of said second icons in said array hierarchical structure; and

display said fourth icons to replace said first icons in said array hierarchical structure on said screen and display said first icons to replace said second icons in said array hierarchical structure on said screen when said icon-specifying means specifies one of said first icons in said array hierarchical structure.

Sub A
2. An information-processing apparatus according to claim 1 wherein said first to fourth icons may each represent a content or a class of a content.

Sub B
3. An information-processing apparatus according to claim 2, said apparatus further having reception means for receiving a content, a content class or information relevant to a content or relevant to a hierarchical layer of contents.

4. An information-processing apparatus according

to claim 3, said apparatus further having third display control means for controlling said display so as to exhibit information relevant to an icon specified by said icon-specifying means or information relevant to a hierarchical layer to which said specified icon pertains.

5. An information-processing apparatus according to claim 1, said apparatus further having fourth display control means for controlling a display of a picture showing a route to one of said second icons.

6. An information-processing apparatus according to claim 1 wherein said first control means is capable of controlling said display so as to scroll said first and second icons when said displayed icons are updated.

7. An information-processing apparatus according to claim 1 wherein said icon-specifying means is capable of specifying:

an icon on a hierarchical layer at a level lower than a hierarchical layer specified by a cursor in accordance with an operation of a predetermined key for a first direction;

an icon on a hierarchical layer at a level higher than a hierarchical layer specified by said cursor in accordance with an operation of a predetermined key for a second direction; and

an icon on the same hierarchical layer specified by a cursor in accordance with an operation of a predetermined key for a third or fourth direction.

8. An information-processing apparatus according to claim 1, said apparatus further having layer-count-acquiring means for acquiring the number of hierarchical layers to be displayed wherein said first control means is capable of controlling said display so as to exhibit icons pertaining to as many hierarchical layers as indicated by said number of hierarchical layers to be displayed, which is acquired by said layer-count-acquiring means.

Sub A5
9. An information-processing method comprises:

a first display step of controlling a display of an icon hierarchy including a plurality of first icons on a first hierarchical layer, a plurality of second icons on a second hierarchical layer at a level lower than said first hierarchical layer, a plurality of third icons on a third hierarchical layer at a level lower than said second hierarchical layer and a plurality of fourth icons on a fourth hierarchical layer at a level higher than said first hierarchical layer so as to exhibit an array of said first icons as a column or a row on a screen and an array of said second icons as another column or

another row on said screen wherein:

the number of said first icons displayed on said screen and the number of said second icons displayed on said screen are determined by the size of a display area on said screen; and

said array of said first icons and said array of said second icons are displayed on said screen to form an array hierarchical structure;

an icon-specifying step of specifying a desired icon from said first or second icons displayed in said array hierarchical structure; and

a second display control step of changing said array hierarchical structure displayed on said screen so as to:

display said third icons to replace said second icons in said array hierarchical structure on said screen and display said second icons to replace said first icons in said array hierarchical structure on said screen when said icon-specifying means specifies one of said second icons in said array hierarchical structure; and

display said fourth icons to replace said first icons in said array hierarchical structure on said screen and display said first icons to replace said second icons in said array hierarchical structure on said screen when

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said icon specifying means specifies one of said first icons in said array hierarchical structure.

10. A recording medium for storing a program to be executed by a computer to implement an information-processing method, which comprises:

a first display control step of controlling a display of an icon hierarchy including a plurality of first icons on a first hierarchical layer, a plurality of second icons on a second hierarchical layer at a level lower than said first hierarchical layer, a plurality of third icons on a third hierarchical layer at a level lower than said second hierarchical layer and a plurality of fourth icons on a fourth hierarchical layer at a level higher than said first hierarchical layer so as to exhibit an array of said first icons as a column or a row on a screen and an array of said second icons as another column or another row on said screen wherein:

the number of said first icons displayed on said screen and the number of said second icons displayed on said screen are determined by the size of a display area on said screen; and

said array of said first icons and said array of said second icons are displayed on said screen to form an array hierarchical structure;

an icon-specifying step of specifying a desired icon from said first or second icons displayed in said array hierarchical structure; and

a second display control step of changing said array hierarchical structure displayed on said screen so as to:

display said third icons to replace said second icons in said array hierarchical structure on said screen and display said second icons to replace said first icons in said array hierarchical structure on said screen when said icon-specifying means specifies one of said second icons in said array hierarchical structure; and

display said fourth icons to replace said first icons in said array hierarchical structure on said screen and display said first icons to replace said second icons in said array hierarchical structure on said screen when said icon-specifying means specifies one of said first icons in said array hierarchical structure.